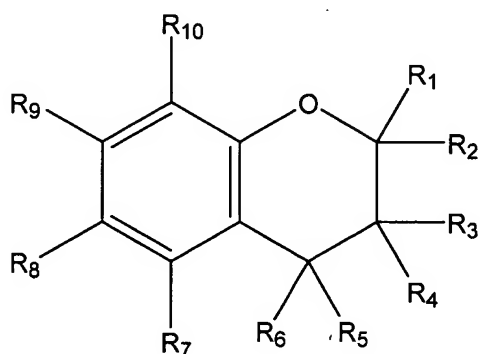


CLAIMS

What is claimed is:

1. A method for inhibiting the growth of androgen-dependent tumor cells comprising the step of administering to said tumor cells an effective amount of:

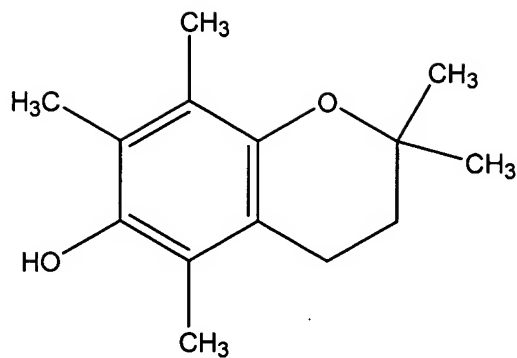
5 (a) a compound having the formula:



wherein R₁, R₂, R₃, R₄, R₅, R₆, R₇, R₉ and R₁₀ are independently a substituted or un-substituted C₁-C₃ alkyl group or H; R₈ is an OH; or

(b) a pharmaceutically acceptable salt of said compound.

10 2. A method according to claim 1 wherein said compound has the formula:

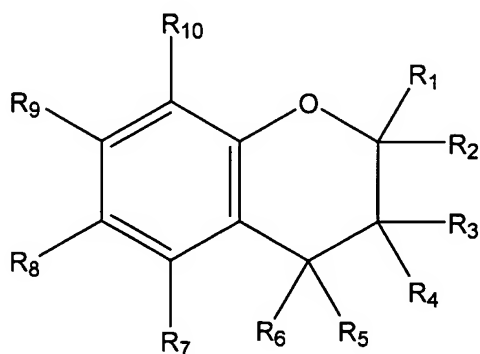


3. A method according to claim 1 wherein said compound is characterized by a water solubility greater than that of vitamin E.

4. A method according to claim 1 wherein said androgen-dependent tumor
5 cells are contained within a patient.

5. A method of delaying the progression of prostate cancer in a patient suffering from prostate cancer, comprising the step of administering to said patient an effective amount of:

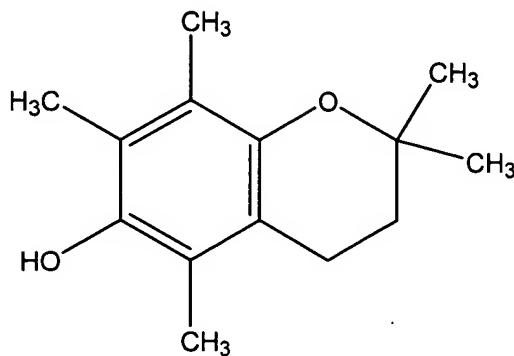
(a) an anti-androgen compound having the structure:



10 wherein R₁, R₂, R₃, R₄, R₅, R₆, R₇, R₉ and R₁₀ are independently a substituted or un-substituted C₁-C₃ alkyl group or H; R₈ is an OH; or

(b) a pharmaceutically acceptable salt of said compound.

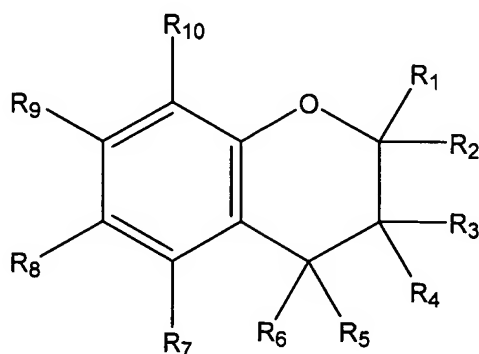
6. A method according to claim 5 wherein said compound has the formula:



7. A method according to claim 5 wherein said compound is characterized by
5 a water solubility greater than that of vitamin E.

8. A method of preventing the occurrence or recurrence of prostate cancer in a patient in risk thereof, comprising the step of administering to said patient an effective amount of:

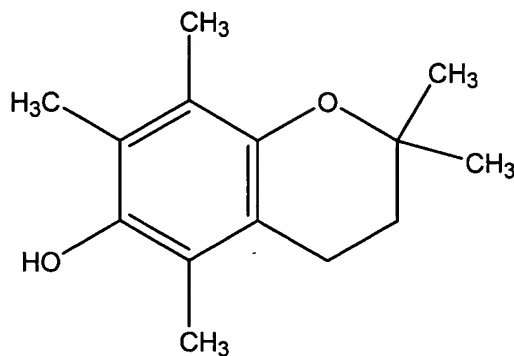
(a) an anti-androgen compound having the structure:



10 wherein R₁, R₂, R₃, R₄, R₅, R₆, R₇, R₉ and R₁₀ are independently a substituted or un-substituted C₁-C₃ alkyl group or H; R₈ is an OH; or

(b) a pharmaceutically acceptable salt of said compound.

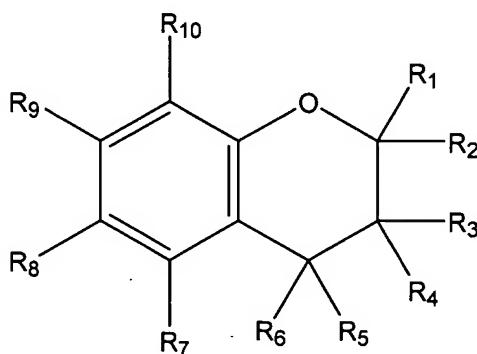
9. A method according to claim 8 wherein said compound has the formula:



10. A method according to claim 8 wherein said compound is characterized by
5 a water solubility greater than that of vitamin E.

11. A method for the treatment in a patient of an androgen-mediated disorder
remediable by contacting an anti-androgen compound with an androgen receptor,
comprising the step of administering to the patient an effective amount of:

(a) an anti-androgen compound having the formula:



10 wherein R₁, R₂, R₃, R₄, R₅, R₆, R₇, R₉ and R₁₀ are independently a substituted or
un-substituted C₁-C₃ alkyl group or H; R₈ is an OH; or

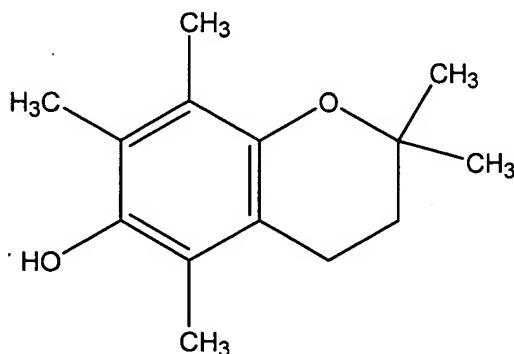
(b) a pharmaceutically acceptable salt of said compound.

12. A method according to claim 11 wherein said compound reversibly binds to and is an antagonist of the androgen receptor.

13. A method according to claim 11 wherein said condition is selected from the group consisting of hirsutism, acne, seborrhea, Alzheimer's disease, androgenic alopecia, hyperpilosity, benign prostatic hypertrophy, adenomas or neoplasias of the prostate, treatment of benign or malignant tumor cells containing the androgen receptor, modulation of VEGF expression for use as antiangiogenic agents, osteoporosis, suppressing spermatogenesis, libido, cachexia, endometriosis, polycystic ovary syndrome, anorexia, androgen-related diseases and conditions, male and female sexual dysfunction and infertility.

14. A method according to claim 11 wherein said condition is a neoplasia of the prostate.

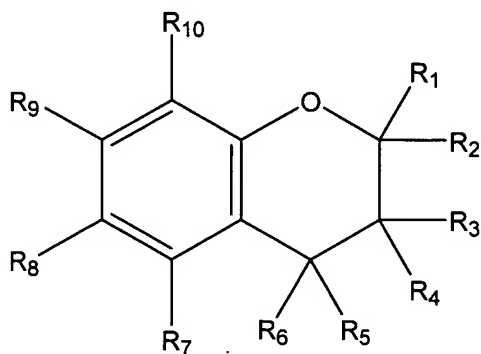
15. A method according to claim 11 wherein said compound has the formula:



16. A method according to claim 11 wherein said compound is characterized by a water solubility greater than that of vitamin E.

17. A pharmaceutical composition comprising:

(a) a compound having the formula:



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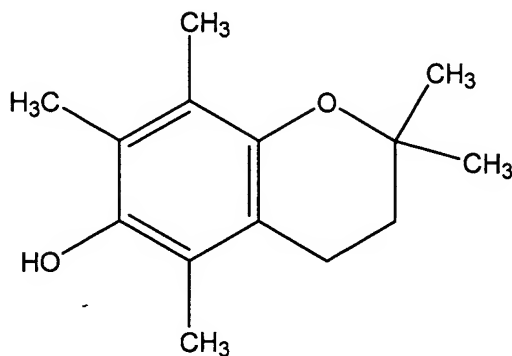
wherein R₁, R₂, R₃, R₄, R₅, R₆, R₇, R₉ and R₁₀ are independently a substituted or un-substituted C₁-C₃ alkyl group or H; R₈ is an OH; or

(b) a pharmaceutically acceptable salt of said compound; and

(c) a pharmaceutically-acceptable carrier.

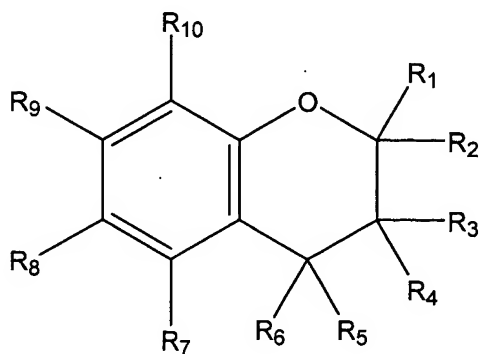
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18. A pharmaceutical composition according to claim 17 wherein said compound has the formula:



19. A method of providing nutraceutical benefits to a patient comprising the step of administering to the patient a nutraceutical composition including:

(a) a compound having the formula:

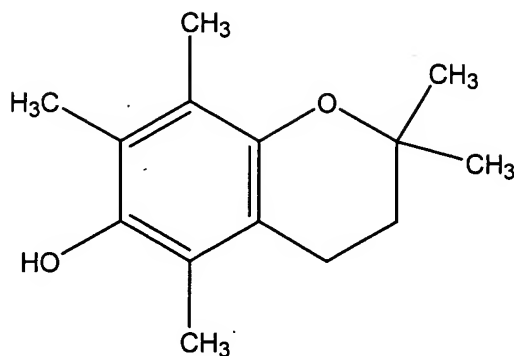


wherein R_1 , R_2 , R_3 , R_4 , R_5 , R_6 , R_7 , R_9 and R_{10} are independently a substituted or un-substituted C_1 - C_3 alkyl group or H; R_8 is an OH; or

(b) a pharmaceutically-acceptable salt of said compound; and

(c) an acceptable carrier.

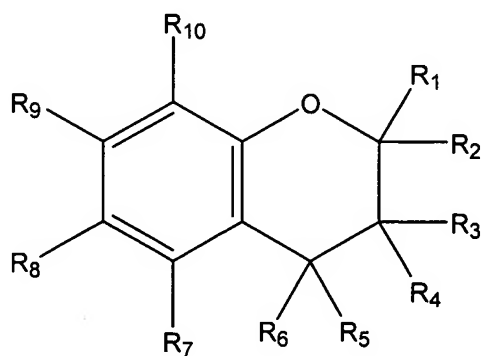
20. A method according to claim 19 wherein said compound has the formula:



21. A method according to claim 19 wherein said nutraceutical composition further comprises an immune boosting agent, anti-inflammatory agent, anti-oxidant agent, or a mixture thereof.

22. A nutraceutical composition comprising:

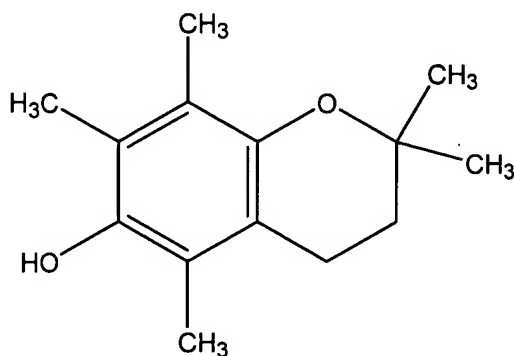
(a) a compound having the formula:



wherein R_1 , R_2 , R_3 , R_4 , R_5 , R_6 , R_7 , R_9 and R_{10} are independently a substituted or un-substituted C_1 - C_3 alkyl group or H; R_8 is an OH; or

- (b) a pharmaceutically-acceptable salt of said compound; and
- (c) an acceptable carrier.

23. A nutraceutical composition according to claim 22 wherein said compound has the formula:



5

24. A nutraceutical composition according to claim 22 further comprising an immune boosting agent, anti-inflammatory agent, anti-oxidant agent, or a mixture thereof.